

Claims

1. A racket for ball games including a frame (4) having a racket head (6) and a handle portion (10) connected thereto and being formed of a frame profile, wherein the racket head (6) defines a stringing plane and the frame profile comprises four trough-shaped depressions (12) in the area of the racket head (4), said trough-shaped depressions (12) being arranged opposite to one another in pairs and essentially symmetrical with respect to the longitudinal axis of the racket (2).
2. The racket according to claim 1, wherein a first pair of trough-shaped depressions (12) is provided between two o'clock and four o'clock and a second pair of trough-shaped depressions is provided between eight o'clock and ten o'clock, wherein two of the trough-shaped depressions (12) are formed on a front side of the racket and two of the trough-shaped depressions (12) are formed on an opposite rear side of the racket.
3. The racket according to claim 1 or 2, wherein a first pair of trough-shaped depressions (12) is formed at about three o'clock and a second pair of trough-shaped depressions (12) is formed at about nine o'clock, wherein two of the trough-shaped depressions (12) are formed on a front side of the racket and two of the trough-shaped depressions (12) are formed on an opposite rear side of the racket.
4. The racket according to claim 1 or 2, wherein a first pair of trough-shaped depressions (12) is displaced from the three o'clock position by about 2 to 3 cm towards a free end of the racket (2) and a second pair of trough-shaped depressions (12) is displaced from the nine o'clock position by about 2 to 3 cm towards the free end of the racket (2), wherein two of the trough-shaped depressions (12) are formed on a front side of the racket and two of the trough-shaped depressions (12) are formed on an opposite rear side of the racket.
5. The racket according to any one of claims 1 to 4, wherein the opposite trough-shaped depressions (12) each have a depth (T), so that when being viewed in a direction parallel to the stringing plane, there is a reduced frame height (h) ranging approximately between 60% and 95%, preferably between 70% and 90% and more preferably at 80% of a frame height (H) next to the depressions (12).
6. The racket according to any one of claims 1 to 5, wherein a length (L) of each trough-shaped depression (12) along the frame profile ranges between 10 mm and 30

mm, preferably between 12 mm and 25 mm and more preferably between 15 mm and 23 mm.

- 5 7. The racket according to any one of claims 1 to 6, wherein, when being viewed in the direction parallel to the stringing plane, each of the trough-shaped depressions is essentially circular and has a circular arc radius within the range between 15 mm and 25 mm, preferably of about 20 mm.
- 10 8. The racket according to any one of claims 1 to 7, wherein each pair of opposite depressions (12) has an opening (14) extending essentially perpendicular with respect to the stringing plane of the racket (2) through the frame profile.
- 15 9. The racket according to claim 8, wherein the opening is circular cylindrical and has a diameter (D) ranging between 2 mm and 8 mm, preferably between 3 mm and 6 mm.
- 20 10. The racket according to claim 8 or 9, wherein an essentially tubular insert (16) is provided in the opening (14) in order to close the frame profile towards the interior.
- 25 11. The racket according to any one of claims 1 to 10, wherein in the area of the four trough-shaped depressions (12) the frame profile comprises one or more strengthening layer(s).
- 30 12. The racket according to claim 11, wherein the strengthening layer comprises a woven fabric made of carbon fiber, glass or aramid and/or a unidirectional prepreg and is arranged at an angle of $\pm 45^\circ$ with respect to the longitudinal direction of the frame.
- 35 13. A process for producing a racket, in particular according to any one of claims 1 to 12, comprising the following steps:
 - (a) forming a frame (4) consisting of a frame profile and comprising a racket head (6) and a handle portion (10) connected thereto; and
 - (b) providing four trough-shaped depressions (12) which are arranged on the racket head (6) opposite to one another in pairs and essentially symmetrical with respect to the longitudinal axis of the racket (2).

14. A process according to claim 13, wherein the trough-shaped depressions (12) are formed simultaneously with the frame (4) during the step of molding the frame profile in a molding press.
- 5 15. The process according to claim 13 or 14, wherein the frame profile comprises at least one opening (14) per depression (12).
16. The process according to claim 15, wherein the opening is formed by drilling, milling or sawing.
- 10 17. The process according to claim 15 or 16, wherein an essentially tubular insert is introduced into the opening in order to close the frame profile towards the interior.